



AN ENVIRONMENTAL GUIDE FOR TEXAS

DRY CLEANERS

An Overview of
Pollution Prevention,
Rules and Permits
(First Edition)



Published by the Small Business
Technical Assistance Program
of the Texas Natural Resource
Conservation Commission

TNRCC offers the Small Business Technical Assistance Program (SBTAP) because small businesses have trouble finding and understanding environmental rules. Small businesses with fewer than 100 employees can receive free confidential services and information by contacting the SBTAP Office.

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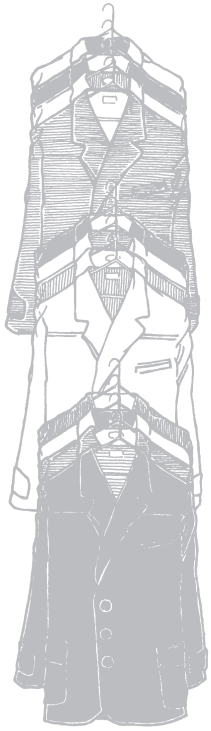
Please note that this guide provides an outline of certain environmental requirements that may affect a Dry Cleaning Facility and is not intended to offer legal advice. This guide is intended as advisory guidance only and is not intended as a substitute for reading the law or regulations.

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DRY CLEANERS

**An Overview of
Pollution Prevention,
Rules and Permits**

Read Time: Approximately 30 Minutes



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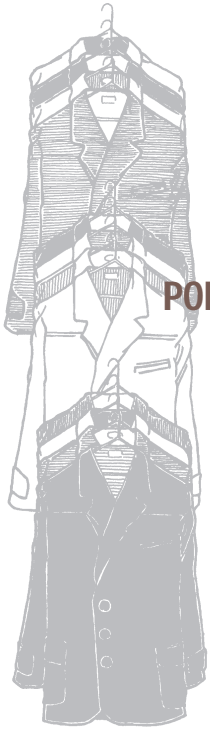
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Introduction

This booklet is a guide to what Texans in the dry cleaning industry need to know to help protect our environment and comply with state and federal environmental laws. It was produced by the Texas Natural Resource Conservation Commission's (TNRCC) Small Business Technical Assistance Program (SBTAP), an office created to help businesses like yours. You may deal with the SBTAP in confidence. The information you share with us and the questions you ask will NOT be provided to any regulatory or enforcement program of the TNRCC.

Pollution is one of the nation's primary health and environmental concerns. In Texas, a significant amount of pollution is created by small businesses. New state and federal laws are aimed at reducing your contribution to this problem. To comply with these laws, you may need to do more than you are currently doing.

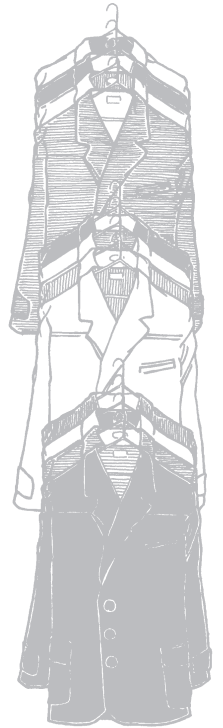
In addition to providing information about environmental laws and regulations, this brochure offers tips about how to reduce or prevent pollution. Using these tips can help you save money. They can also help reduce your emissions to the point where fewer regulations apply to you.

You may find after reading this booklet that you need additional information. A postage-paid reply card is provided to request relevant publications. Or, you can CALL US AT 1-800-447-2827.

Of the dry cleaning industry it is safe to say "If you can smell it, there are pollutants going into the air." Typically, the petroleum solvent dry cleaning process emits what scientists call volatile organic compounds, or VOCs. Many dry cleaners also emit perchloroethylene which is a hazardous air pollutant or HAP, and other contaminants. All of these emissions contribute to air pollution.

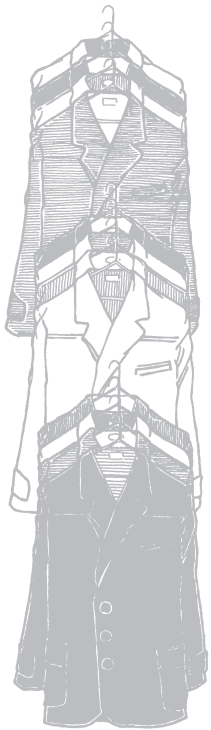
A few dry cleaning operations still use the "Valclene" system, employing liquid fluorocarbon 113, or trichlorotrifluoroethane, under pressure. This chemical will be phased out of production in 1996. If you use it you should begin to look for alternatives now.

Why Do I Need This Booklet?



How Can I Get The Information I Need?

What Air Pollutants Do Dry Cleaners Emit?



State Air Regulations

This booklet addresses State air permitting issues first. In addition to state authorization, some businesses that emit large amounts of air pollutants also need a federal operating permit. **Many dry cleaners will not require a federal operating permit.** *For those that might need one, however, federal permit requirements are discussed in a later section starting on page 16.*

What Air Regulations Apply To Me?

Any business that generates air contaminants must receive authorization from the Texas Natural Resource Conservation Commission (TNRCC) to construct or modify its facility and subsequently to operate. This state authorization can take three forms:

- “Grandfathered” status
- Standard exemption
- State Air Permit

Each of these types of authorization will be discussed in detail below. **Note: Local or authorities may also have restrictions, fees, etc. that apply to your business.**

The type of authorization you need depends on such things as:

- the amount of solvents and other chemicals you use,
- the amount of air pollution your facility has the potential to generate,
- the quality of the air in the county where your facility is located, and
- the date of the last change you made to your facility.

The type of authorization you need does not depend on any financial aspect of your business, such as volume of business or gross sales.

Read on for more detail about the various types of authorization.

How Do I Know If I Need A State Air Permit?

You will need a permit to construct or modify your facility and to operate it unless it is “grandfathered” or qualifies for a “standard exemption” from the permitting process. These exemptions from permitting are discussed on the following pages.

If you already have a State Air “Permit to Construct,” be sure to read it carefully. It will contain specific requirements for your operation. See also, “What Records Do I Need To Keep” and “What Do I Do When I Am Inspected” on page 15.

Some facilities that were in constructed *before* September 1, 1971 may be “grandfathered” (exempted) from the requirement to obtain a state air permit. In order to demonstrate that your facility is grandfathered, you must be able to verify the following:

- that construction on your facility began before September 1, 1971; and
- that you have not made any physical changes, changed equipment or materials or the amount of materials used, or changed any methods of operation since September 1, 1971 which would result in a change in the nature of emissions or an increase in the amount of emissions.

Very few dry cleaning businesses can qualify for the grandfathering provision. To stay competitive, most have added new, more efficient equipment over the years or are using different solvents and materials.

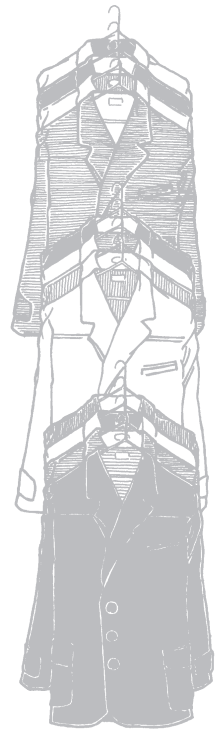
If you want more information about demonstrating grandfathered status, CALL US at 1-800-447-2827.

If you are not eligible for grandfathered status, you may still qualify for one or more “standard exemptions” from the permitting process. Otherwise you will need a state air permit. Remember also that there may be city or local requirements, restrictions, fees, etc. that apply to your business.

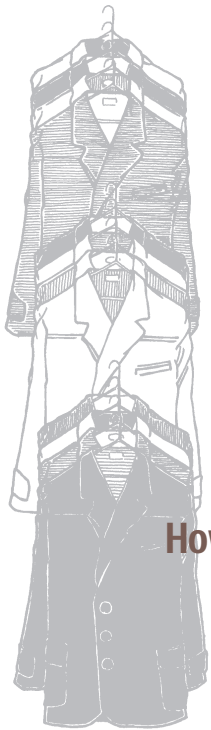
Dry cleaning businesses that are not grandfathered may be able to operate under a standard exemption. State air quality regulations include more than 100 specific exemptions from air permitting requirements. The term “standard exemption” means that a facility may be exempted from the requirement for a state air permit. These businesses must meet a “standard” set of conditions. A facility that meets these conditions will not make a significant contribution of air pollutants to the atmosphere and thus does not require a permit.

Do You Have Any Air Permits Now?

What Is “Grandfathered” Status?



Who Can Claim A Standard Exemption?



How Do I Claim A Standard Exemption?

It is beneficial to most small businesses to meet the conditions of one or more standard exemptions. This type of authorization can be approved far more quickly than a permit and it involves no application fee. However, the conditions of the standard exemption are not negotiable; to qualify for exemption from the state permitting process, a facility must meet the conditions exactly to qualify. **Standard exemptions simply exempt you from having to obtain an air permit. Exempted facilities must comply with all federal, state and local air laws and other environmental regulations.**

If you meet all the conditions of a standard exemption then you qualify for exemption from the air permitting process. Some standard exemptions require you to register your exemption status with the TNRCC by filing a TNRCC form. (See also, “How Do I Get A State Air Permit?”, on page 13.) Others allow you simply to qualify for the standard exemption without notifying anyone. The exemptions available to dry cleaning operations do not currently require notification. Regardless of the notification requirement, however, you are responsible for keeping records that verify your claim that your facility meets the conditions of the standard exemption.

Is There A Standard Exemption For Dry Cleaners?

YES. The primary standard exemption for dry cleaners in Texas is Standard Exemption No. 9. It exempts from the permitting process:

“Equipment used exclusively for steam or dry cleaning of fabrics, plastics, rubber, wood or vehicle engines or drive trains.”

To qualify for the exemption, you must meet these criteria exactly, i.e., your facility’s equipment must be used exclusively for the purposes outlined above. In addition, your total emissions of volatile organic compounds (VOCs), the pollutants generally associated with the dry cleaning process, must not exceed 25 tons per year. This is the ceiling that state regulations set for processes emitting this category of contaminant. Read below to see if you are under this limit.

Petroleum-based dry cleaning solvents are VOCs. Dry cleaning plants that use petroleum-based solvents are exempt from air permit requirements if they emit no more than 25 tons of VOCs per year. This limit will be reached when a facility uses approximately 7,500 gallons of these solvents annually.

For purposes of regulation, your petroleum dry cleaning solvent is considered to be 100 percent volatile. This means the state will consider the amount you purchased (less what you have in storage and in the tank of your machine) to be the amount your facility emitted. Included in this determination is residual solvent that might remain in filters, muck or other places, since it will eventually be emitted.

If you are a petroleum-solvent dry cleaner emitting more than 25 tons of VOCs per year (using approximately 7,500 gallons or more of solvent) you may require a state permit to construct and operate your business. For more information, CALL US AT 1-800-447-2827.

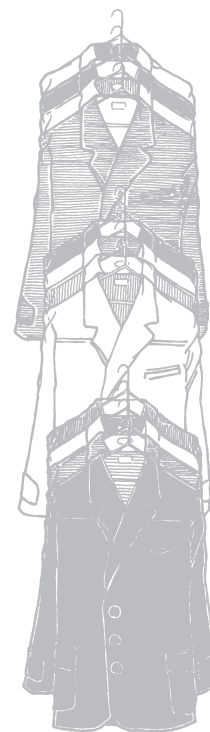
Perchloroethylene is the other major dry cleaning solvent to be considered in calculating total yearly emissions. “Perc” belongs to a category of chemicals federal law terms Hazardous Air Pollutants (HAPs). To be exempt from state permit requirements, a facility can emit no more than 25 tons of this compound per year. Since “perc” weighs more than petroleum solvent, 25 tons of emissions is equivalent to just 3,500 gallons of solvent.

Perchloroethylene solvent evaporates totally when exposed to the atmosphere during the dry cleaning process. As it does with petroleum-based operations, the state considers a facility to have emitted perc if the business purchased the solvent and does not still have it either in storage or in the tank of its machine. Again, this limit includes residual solvent that might remain in filters, muck or other places since it will eventually be emitted.

If you are a perchloroethylene dry cleaner emitting more than 25 tons of perchloroethylene per year (using approximately 3,500 gallons of perchloroethylene) you may require a state permit to construct and operate your business. For more information, CALL US AT 1-800-447-2827.

For dry cleaners using either petroleum-based solvent and, or perchloroethylene, emissions of 25 tons or less per year of these solvents will allow the facility to qualify for the dry cleaning standard exemption. There is one exception to this rule. When a facility on the same premises as the dry cleaning business is already permitted or is in the midst of a permit process, the dry cleaning facility’s allowable emissions may be affected by what the permitted facility is emitting.

How Do I Know What My Total Yearly Emissions Are?





What Happens If I Do Not Meet The Conditions Necessary To Qualify For The Standard Exemption?

If you operate a dry cleaning business on the premises of another facility for which you have a permit (or are seeking a permit) and you need information on your dry cleaner's emission limits, CALL US AT 1-800-447-2827.

If you do not meet all of the conditions of a standard exemption exactly, you do not qualify for the exemption unless you modify your facility to meet the conditions. If you cannot modify your facility or operations to meet the conditions, you must obtain a permit. If you would like detailed information about how to modify your facility or how to obtain a permit, CALL US AT 1-800-447-2827. (See also, "What If I Am In Violation Of The Laws Or Regulations?", on page 26.)

What Other Standard Exemptions May Apply To My Business?

If you do anything in addition to dry cleaning at your facility, CALL US AT 1-800-447-2827 and let us help you decide if other permitting requirements exist or if other standard exemptions might apply to those operations. The following questions concern other operations typically found at dry cleaners. You may have others at your facility. Remember, too, that there may be city or local requirements, restrictions, fees, etc. that apply to your business. Check with your local authorities.

Do You Have A Large Storage Tank As Part Of Your Operation?

If your facility includes a solvent storage tank with a capacity of more than 1,000 gallons, the tank may be subject to regulation. If it meets certain conditions, it may be exempted from regulation or qualify for exemption from the permitting process. Otherwise, it would need a permit. Most dry cleaners do not have such large solvent storage tanks. If you do have a tank of this size, CALL US AT 1-800-447-2827 and ask for information on Standard Exemption No. 53.

Do You Have A Large Boiler As Part Of Your Operation?

If your facility uses a large boiler, you may need a permit for its operation. A boiler fired by natural gas, liquid petroleum gas, fuel gas, or a combination of these fuels that is rated at greater than 40 million BTU (900 horsepower) may require a permit. A boiler fired by fuel oil that is rated at greater than 10 million BTU (225 horsepower) may also require a permit. Boilers smaller than these would qualify for a standard

exemption. (NOTE: Boiler information should be stamped on the boiler's specification plate or available from the vendor or manufacturer.)

For information on regulations applicable to boilers, CALL US AT 1-800-447-2827 and ask for information on Standard Exemption No. 7.

Dry cleaning businesses that are not grandfathered and do not meet the requirements for a standard exemption must obtain a state air permit. To get a permit, you must submit an application and an application fee to the TNRCC. The Form PI-1 is the basic permit application. Some standard exemptions require submission of a Form PI-7, registration. CALL US AT 1-800-447-2827 if you think you need these forms. When you submit an application it will be reviewed by technical staff. Once it is approved, you will receive your permit or acknowledgement of your registration for standard exemption. You may then begin to construct or operate your facility.

By law you must obtain your permit before you begin to construct or operate your facility. If your facility is already operating without the required authorization, you should seek that authorization now. (See Also, "What If I Am In Violation Of The Laws Or Regulations?", on page 26.)

You may also have other operations going on at your facility. Some dry cleaners also operate a laundry on premises, for instance. Each of these operations must be considered separately for purposes of permitting or qualifying for an exemption. If you need more information, CALL US AT 1-800-447-2827.

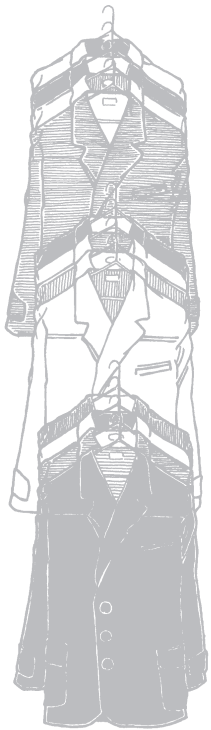
YES. Some areas have worse air pollution than others. The counties listed below are called "nonattainment areas" because they have not "attained" or reached national standards for clean air. Businesses that contribute to air pollution in non-attainment areas are subject to special regulations. For example, there are tight limitations on the emission of volatile organic compounds, which might require businesses to keep

How Do I Get A State Air Permit?

What If I Have More Than One Process In Operation At My Facility?

Do Some Counties Have Special Requirements?





wastes in sealed containers or install additional control devices on certain machines.

Are You Located In One Of These Counties?

- | | | |
|------------|-------------|--------------|
| ■ Brazoria | ■ Fort Bend | ■ Liberty |
| ■ Chambers | ■ Galveston | ■ Montgomery |
| ■ Collin | ■ Hardin | ■ Orange |
| ■ Dallas | ■ Harris | ■ Tarrant |
| ■ Denton | ■ Jefferson | ■ Waller |
| ■ El Paso | | |

If yes, there are special limitations and regulations that apply to you. **These limitations may apply in these counties even if the business has been grandfathered or has a standard exemption or permit.**

If you operate a dry cleaning facility located in one of these counties, **CALL US AT 1-800-447-2827** and ask for information on **Nonattainment**.

What General TNRCC State Regulations Apply?

The General Rules of TNRCC provide guidance on how every business can control air pollution. The following rules apply to all businesses, including the dry cleaning industry:

Don't Be a Nuisance

Your facility is not allowed to discharge or add to existing discharges of air contaminants, including odors, that are or may tend to be injurious to or adversely affect human health or welfare, animal life, vegetation, or the normal use and enjoyment of property.

Good Housekeeping and Maintenance

You must maintain pollution control equipment in good working order and operate it properly. Notify your TNRCC Regional Office at least 10 working days before any planned maintenance, start-up or shut-down that will or may cause excessive emissions. Plans for the type of maintenance activities you are conducting may be requested by TNRCC.

Emissions Inventory Requirements

Large sources of emissions and large users of hazardous air pollutants must calculate and report those emissions. If your facility uses at least 1,400 gallons of perc or 3,000 gallons of petroleum-based solvent per year call us to determine if you

have emissions reporting requirements to the TNRCC.

If you need to know more about these general requirements, CALL US AT 1-800-447-2827.

All businesses with a permit or an exemption from the permitting process must keep records that show compliance. Normal business transactions, such as purchase records, usage logs, waste manifests, your Notice of Registration, or NOR, (if you are a small or large quantity generator of wastes) and maintenance schedules and records are normally sufficient. Some permits and standard exemptions identify specific records you must keep to verify your compliance.

If you have any questions about what records you should be keeping, CALL US AT 1-800-447-2827.

Always remember that inspectors are people too. Treat them as you would like to be treated and answer their questions honestly. Your inspector wants to work with you to help you achieve compliance-but he or she will be firm; ignorance of your requirements is not an excuse for violation. The following will help: if you are operating under authority of a permit or have a municipal license or some other authorization be knowledgeable of all facets of these important documents and expect all requirements to be checked; be ready to demonstrate them. The same is true if you are operating under a standard exemption from air permitting or have some other exception for your operation: expect all requirements to be checked. Facilities that use perc may be inspected by the EPA. Regardless of who inspects, if you run a clean, presentable business and your records are clear and detailed, your inspection will go well. If you receive a notice of violation (NOV) CALL US AT 1-800-447-2827.

If you plan to change any process, method of operation or equipment, you must first consider if you can still meet all the conditions of your standard exemption or permit after you make these changes. If you will not, you may trigger the need for a permit or permit amendment.

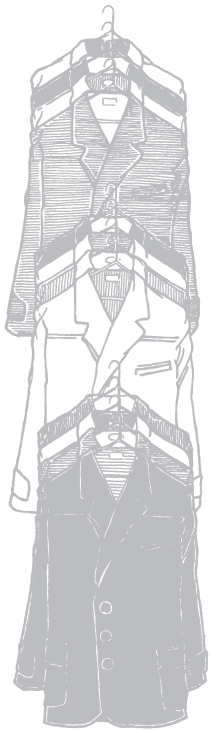
If you need information on how proposed changes might affect your status CALL US AT 1-800-447-2827.

What Records Do I Need To Keep?

What Do I Do When I Am Inspected?

What If I Plan To Make Changes To My Operation?





Do I Need A Federal Air Permit?

Federal Requirements

As early as 1996, federal air laws will require all businesses defined as “major sources” of air pollutants to obtain a federal operating permit. Specifically, major source dry cleaning facilities (read on to determine if you are a “major source”) are currently scheduled for federal operating permit action in 1997. Major sources are facilities that emit large amounts of air pollutants or large amounts of substances listed as hazardous air pollutants (HAPs). Petroleum-based solvents are a source of air pollutants and perchloroethylene is a HAP. Many dry cleaners do not use enough of these solvents to qualify as a “major source” in either category.

To determine whether or not you are a major source of air pollutants, look closely at your operation. If you use at least 25 tons (7,500 gallons) per year of petroleum-based solvents or at least 10 tons (1,400 gallons) per year of perc, you may need to know more about how to calculate the exact amount of emissions that would make you a “major source”.

It is important to note that a facility that uses perc could be exempted from the state air permitting process but still require a federal operating permit. This is because dry cleaners reach the requirement for a state permit when emissions exceed 25 tons per year. Federal operating permit requirements for perc emissions start at just 10 tons per year because perc is a HAP. If you are using these substances in the amounts above, CALL US AT 1-800-447-2827.

In addition to or separate from getting a federal operating permit, some businesses may be required by other federal regulations to meet certain control requirements. For example, perchloroethylene is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP). This standard requires all perc dry cleaners in the United States to use equipment and practices that constitute Maximum Achievable Control Technology (MACT). This MACT directs PERC dry cleaners to install specified control devices on their PERC machines and to operate in compliance with special rules.

If you use perc, you must be registered with the EPA. If you need materials or information on this requirement, CALL US AT 1-800-447-2827 and ask for information on PERC Dry Cleaner Control and Registration Requirements.

Hazardous Waste Considerations

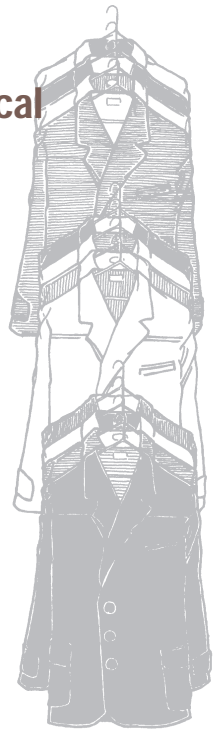
The following sections will explain the steps for proper hazardous waste management. Familiarity with this information will help you make good decisions with confidence. You will also be better able to recognize misinformation. These procedures, will help you ensure that your business complies with federal and state hazardous waste laws. The information below will help you answer two basic questions: 1.) Does my business generate hazardous waste? and 2.) If so, how much hazardous waste does it generate per month? The answers to these questions will tell you what requirements apply to you.

The term “hazardous” means more than just toxic or dangerous to our health. It also refers to specific kinds of waste defined as hazardous by the Environmental Protection Agency (EPA). Hazardous wastes are regulated by both the EPA and the Texas Natural Resource Conservation Commission (TNRCC), so it is important for a business to know which of its wastes are hazardous.

A facility (which can be one person or a company of any size) that produces hazardous waste is called a hazardous waste “generator”. The law holds the generator responsible for determining whether or not waste generated at his or her facility is hazardous. Before you can determine if your facility generates hazardous waste, you must first know what a “waste” is. A waste is any solid, liquid, or contained gas that you no longer use, and that you either recycle, throw away, or store until you have enough for treatment or disposal. A **hazardous waste** is any waste that is “listed” as a hazardous waste in the EPA regulations, or has one or more physical “characteristics” defined in the law as hazardous.

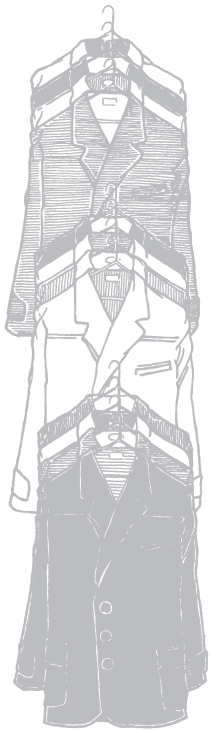
The EPA has published lists of hazardous wastes. You may have any of these chemicals at your facility but they are not considered hazardous wastes if you plan to use them for their intended purpose. As described earlier, these materials do not become “wastes” until you no longer intend to use them and decide to either recycle, throw away or store them indefinitely. If you determine that a material is a waste and it

How Do I Handle Chemical Wastes and Materials?



Do I Generate Hazardous Waste?

What Are Listed Wastes?



appears on one of the EPA's lists, or is mixed with or derived from any of the wastes on these lists, it is hazardous. These wastes are often referred to by their list of origin. "F" listed wastes are from non-specific sources; "K" listed wastes are from specific sources; "P" listed wastes are acutely hazardous and "U" listed wastes are toxic. Most hazardous wastes from a dry cleaning plant are not "listed." Perc and perc-contaminated wastes, however, are F listed hazardous wastes. This would include perc solvent, and anything mixed with or derived from this solvent, such as used carbon filter cartridges, "muck" or spotting board residue.

Note: many of the wastes on the EPA's lists refer to chemicals which are "discarded," unused or stored indefinitely. Both "P" and "U" listed wastes consist of discarded commercial chemical products. As above, these materials do not become "wastes" until you no longer use them and decide to either recycle, throw away or store them indefinitely.

- "P" and "U" listed wastes are commonly referred to as "acutely" hazardous and toxic, respectively. These wastes are not typically found at a dry cleaning plant. They include such substances as sodium cyanide, strychnine, formaldehyde and some pesticides. If you have any unusual compounds or wastes at your facility and you intend to dispose of, recycle or store them indefinitely, you must make a hazardous waste determination on these items along with routine wastes.

To obtain a description of listed hazardous wastes CALL US AT 1-800-447-2827 and ask for information on Listed Hazardous Wastes.

What Are Characteristically Hazardous Wastes?

The EPA considers a waste "characteristically hazardous" if it has one or more of the following characteristics: *ignitability*, *corrosivity*, *reactivity*, or *toxicity*.

- A waste is *ignitable* if it is easily combustible or flammable and has a flash point of less than 140°F. Solvents and certain degreasers are *ignitable*.
- If a waste has a pH less than or equal to 2, or greater than or equal to 12.5, dissolves metals or other materials, or burns the skin, it is *corrosive*. Waste acids and waste alkaline cleaning fluids are *corrosive*.

- A *reactive* waste is unstable or undergoes rapid or violent chemical reaction with water or other materials. Waste bleaches are examples of *reactive* materials.
- When a waste leaches specified amounts of a regulated toxic constituent using the toxic characteristic leaching procedure (TCLP), it is *toxic*. Wastes that contain heavy metals, pesticides, or solvents may be *toxic*.

To obtain a description of characteristic wastes CALL US AT 1-800-447-2827 and ask for information on Characteristic Hazardous Wastes.

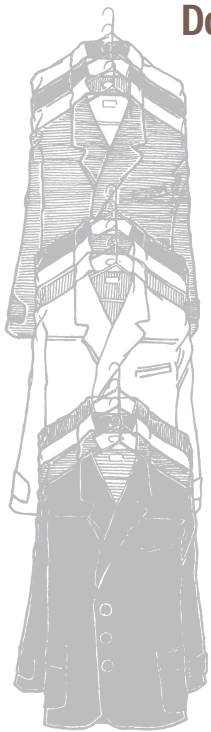
A waste can be both listed and characteristic at the same time. The distinctions between listed and characteristic are important to you, the generator, only for purposes of identifying the waste and assigning “waste codes” which are defined in this section. The generator is responsible for examining each waste generated at the facility and determining if the waste is hazardous or not.

Although hazardous waste determinations require some effort (and possibly expense), you only have to do this once. You do not have to make another hazardous waste determination unless you generate a new waste or unless the nature of your current wastes change. A waste may change if the process or chemicals that created it change. A hazardous waste determination is done in one of three ways:

- 1.) Compare the waste to the EPA lists and to the EPA-defined characteristics for hazardous waste.
- 2.) Use your knowledge of the waste and what went into it. Compare your waste to the lists and characteristics. This method is called “process knowledge.” You may use any information you have about the waste including product labels, material safety data sheets (MSDSs), etc. If you use your process knowledge to make a hazardous waste determination, you must keep accurate and complete records of the information you rely on.
- 3.) Arrange for a lab to analyze the waste to determine whether it is hazardous or not.

How Do I Make A Hazardous Waste Determination?





Do Dry Cleaners Generate Hazardous Waste?

Dry cleaners typically do generate hazardous wastes, both characteristic and listed. Examples of these wastes are:

- Perchloroethylene solvent and all related wastes including:
 - ◆ solvent sludges (“muck”),
 - ◆ still bottoms from solvent distillation,
 - ◆ used filter cartridges,
 - ◆ diatomaceous/carbon filter powder,
 - ◆ spotting board residues.
- Any ignitable solvent¹ with a flash point less than 140°F (see the Material Safety Data Sheet, or MSDS, for flash point). This may include petroleum solvents.
- Distillation residues with a flash point less than 140°F. This may include residues from petroleum solvents.
- Any waste that is contaminated with an ignitable solvent. Under certain conditions such wastes could also be ignitable, and would therefore be hazardous. This would include used filter cartridges, used rags, muck, etc.²

¹*These solvents are normally recycled. However, they are still considered wastes for the purposes of hazardous waste determinations and if they are to be disposed of, they are subject to all applicable laws.*

²*Even though your wastes may not be ignitable, you must check with your local Fire Marshal to determine if they are considered flammable and comply with local disposal requirements.*

What Is My Generator Status?

Once you have determined that you generate a hazardous waste, the next step is to determine how much you generate each month. The amount you produce determines your “Generator Status”, which in turn governs which notification and reporting requirements apply to you.

There are three types of hazardous waste generators: Conditionally Exempt Small Quantity Generators (CESQG), Small Quantity Generators (SQG), and Large Quantity Generators (LQG).

In general, CESQGs do not have to notify a regulatory agency (EPA or TNRCC) or report hazardous waste activity. They must still dispose of and, or store their wastes properly, however, in accordance with applicable rules and regulations. For additional information CALL US AT 1-800-447-2827. Many dry cleaners will fall into the nonindustrial CESQG category. However, both SQGs and LQGs do have to report to both TNRCC and EPA.

What Is A Conditionally Exempt Small Quantity Generator?

CESQGs generate no more than 100 kilograms of hazardous waste per month. This is 220 pounds or about half of a 55-gallon drum of liquid waste.³ Additionally, a CESQG must generate no more than 1 kilogram (1 quart) of “acutely” hazardous waste per month.⁴

What Is A Small Quantity Generator?

SQGs generate between 100 kilograms and 1,000 kilograms of hazardous waste per month. This is the same as generating between 220 pounds (about half of a 55-gallon drum of liquid waste³) and 2,200 pounds (about five 55-gallon drums of liquid waste³) per month. Additionally, no more than 1 kilogram (1 quart) of “acutely” hazardous waste may be generated per month.⁴

What Is A Large Quantity Generator?

LQGs generate 1,000 kilograms or more of hazardous waste per month. 1,000 kilograms is the same as 2,200 pounds or about five drums of liquid waste.³ Also, if more than one kilogram (one quart) of “acutely” hazardous waste is generated per month, Large Quantity Generator status will apply.⁴

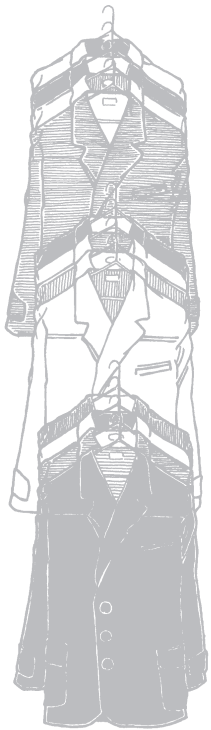
³ The volume of liquid that is equivalent to a particular weight varies depending on the weight of the liquid. 1/2 of a 55-gallon drum of water or water-based liquid weighs 100 kilograms; a full drum weighs 200 kilograms.

⁴ If more than one kilogram (one quart) of “acutely” hazardous waste is generated in *any* month, Large Quantity Generator status will apply to all hazardous wastes from the entire facility for that month.

How Much Waste Can I Store At My Facility?

- If you are a CESQG you may store up to 1,000 kilograms (2,200 pounds or about five 55-gallon drums of liquid) on-site for an unlimited amount of time.
- If you are a SQG you may store up to 6,000 kilograms (13,200 pounds or about thirty 55-gallon drums of liquid) on-site for up to six months.
- If you are a LQG you may store any amount of waste on-site, but you must have a registered hazardous waste transporter dispose of it within three months from the initial date of storage.





Who Do I Have To Notify About My Waste?

If you determine, based on the amount of hazardous waste you generate per month, that you are a CESQG, you are exempt from notification requirements provided you do not store more than 1,000 kilograms (2,200 pounds) on site at any one time. If, however, you are a small or large quantity generator, you must notify the EPA and TNRCC of all your hazardous wastes. Notification involves filling out specific forms and assigning “waste codes” to each hazardous waste you produce. Waste codes are eight-digit numbers that physically describe the waste. The codes are used by TNRCC, disposal facilities, transporters, and you, the generator, to track and identify the wastes. After you notify the TNRCC of your generator status, you will receive a Notice of Registration (NOR).

This is a permanent state record of the waste activity at your site. It can be changed by you at anytime upon written request.

For specific instructions on notification and waste codes, CALL US AT 1-800-447-2827 and ask for information on **Notification And Waste Codes**.

What Records Should I Keep?

If you are a CESQG you must keep records sufficient to verify your status; you must also keep any documents (MSDS, product labels) that you used to make your hazardous waste determinations (see also “Hazardous Waste Determination”, page 19). If you are a small or large quantity generator you should keep your NOR on file. You should also keep copies of the Uniform Hazardous Waste Manifest provided by your registered hazardous waste hauler. If you are not registered or if you ship waste out of state, you should keep copies of monthly shipment summaries. The annual waste summary is sent to registered generators by the TNRCC at the end of each year. Keep this on file. If you have questions, CALL US AT 1-800-447-2827.

The following table summarizes the differences between CESQG, SQG, and LQG that are applicable to dry cleaners.

All generators of hazardous waste (CESQGs, SQGs, and LQGs) should continue reading for storage and disposal requirements.

Summary of Generator Status Requirements

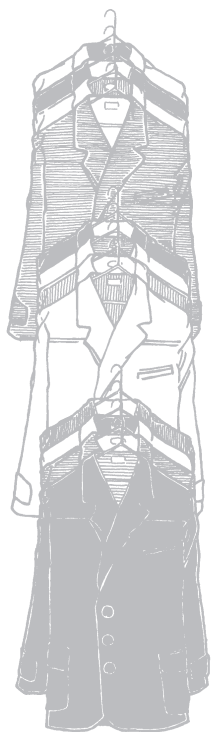
Generator Status	Amount of Hazardous Waste per Month	Amount Acutely Hazardous Waste per Month	Amount of Hazardous Waste Stored On-Site & Time Allowed	Do I Notify EPA?	Do I Notify TNRCC?
CESQG	100 kg or less (220 lbs. or 1/2 55-gal. drum)	1 kg or less (1 qt.)	1,000 kg or less for any length of time	NO	NO
SQG	Between 100 and 1,000 kg (2,200 lbs. or five 55-gal. drums)	1 kg or less (1 qt.)	6,000 kg or less for up to 6 months	YES	YES
LQG	1,000 kg or more (2,200 lbs. or five 55-gal. drums)	More than 1 kg. (1 qt.)	Any amount for up to 3 months	YES	YES



Regardless of how much hazardous waste you are allowed to store on-site, you must comply with certain storage laws relating to the containers and physical conditions of the wastes. The purpose of these “container rules” is to ensure maximum safety for your staff and to protect the environment surrounding the wastes. Wastes may be accumulated in 55-gallon drums, tanks, or other containers suitable for the type of waste to be accumulated. The guidelines for hazardous waste accumulation are:

- Clearly label each container with the words “Hazardous Waste,” the date accumulation began and the contents.
- Keep containers in good condition and do not allow leakage, corrosion, or rupture.
- Inspect containers weekly for corrosion, leakage, and bulging.
- Keep containers closed except when filling or emptying them.
- Make sure that if you are storing ignitable or reactive wastes, containers are placed as far as possible from your property line.
- Never store different wastes in the same container that could react together to cause fires, leaks, or gaseous releases.

How Do I Store Hazardous Waste?



How Do I Dispose Of Hazardous Waste?

Do not dispose of hazardous waste yourself on any property, even your own, unless you have an EPA permit allowing you to do so. To ensure that your hazardous waste is properly disposed of, you must choose a registered hazardous waste transporter (who will haul the waste) and a permitted waste management facility (which will treat or dispose of it). Many companies provide both services to generators. The most important things you should remember about having your waste shipped off-site for disposal are:

- Choose a transporter and facility that have EPA and TNRCC identification numbers.
- Package and label your wastes properly for shipping. Your transporter should be able to assist you. If you have questions, CALL US AT 1-800-447-2827 and ask for information on **Packaging Hazardous Wastes**.
- Complete the EPA form titled “Uniform Hazardous Waste Manifest” which must accompany the waste shipment from your facility to disposal. Use of this form is called “manifesting” your waste.

NOTE: If you are a conditionally exempt small quantity generator, you are not required to complete a Uniform Hazardous Waste Manifest. If your registered transporter requires a TNRCC or EPA registration number, you may insert the letters “CESQG” in the appropriate spaces on the manifest in lieu of a registration number. This is sufficient for a conditionally exempt small quantity generator in accordance with *Title 40 of the Code of Federal Regulations*, (CFR) 261.5(b) and remember, you must always dispose of your hazardous wastes properly, regardless of your generator status (“CESQG” or otherwise).

Do I Need A Hazardous Waste Permit?

Most dry cleaners do not need hazardous waste disposal permits. Permits are issued primarily to treatment, storage, and disposal facilities, not to individual generators. If you are a SQG or a LQG you may need a registration to produce the waste, but not a permit. A “permit” is permission by the EPA and TNRCC to store, treat or dispose of your waste on your facility’s property in quantities and for time periods which exceed what your generator status allows.

You do not need a hazardous waste permit unless you do one of the following:

- store your waste longer than your generator status allows;
- treat your waste in an open container in an attempt to remove its hazardous characteristics; or

- dispose of your waste on your facility's property. Disposal includes burning, burying, and dumping.

Note: Heating dry cleaning muck to remove the perchloroethylene and collecting the condensed liquid for recycling does not require any type of hazardous waste permit.

To obtain information on hazardous waste permits, CALL US AT 1-800-447-2827.

Any water waste that your business generates is a waste. This includes water from washing equipment, water contaminated with solvents, or any other water that is an end result of some process. As stated earlier, you must make a hazardous waste determination on all your wastes using one or more of the three methods described. If a water waste is found to be hazardous, you must follow the procedures outlined above for managing hazardous wastes. If a water waste is found to be nonhazardous, it can be discarded into the sewers, provided your city wastewater treatment plant has approved this practice.

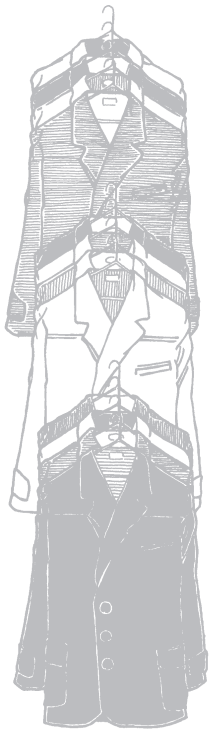
Do not dump any wastes into any drains or sewer systems unless you have first contacted the local wastewater treatment plant and obtained authorization to do so. Some wastes are harmful to the collection system and the treatment plant. Some are not treatable, or may be harmful to people working on the system or at the plant.

A wastewater permit gives a business permission to discharge wastewater outside a municipal sewage system, i.e. to discharge it into a ditch, pond, lake, creek, river or other waterway. Most dry cleaners do not handle their wastewater this way; they discharge it into municipal sewage pipes. Anyone who discharges wastewater into anything other than a municipal sewage system must have a permit to do so from TNRCC. For additional information regarding hazardous waste management and how you can comply with the laws affecting you, CALL US AT 1-800-447-2827.

What Should I Do With My Dirty Water?



Do I Need A Wastewater Permit?



What If I Am In Violation Of The Laws Or Regulations?

If you discover that you have violated the law or a regulation in the past or that you are not currently in compliance, you should notify the TNRCC as soon as possible. It is always better to report your own violations than to be the subject of a complaint or to have violations discovered during a TNRCC inspection. Often small businesses will not face fines or sanctions for their first violation if they make a good faith effort to report problems promptly and if they work out a plan with the TNRCC to correct the problem. For confidential assistance, CALL US AT 1-800-447-2827.

Pollution Prevention

How Do Dry Cleaners Pollute?
Many steps in the dry cleaning process can cause pollution. Petroleum solvents, perchloroethylene and special spotting compounds can all emit air pollutants. Still bottom residues, spotting board residues, and contaminated waste water can also cause pollution.

What Does Pollution Prevention Mean?

Pollution prevention is the practice of preventing or reducing pollution at the source whenever possible. By “reducing at the source” (also called “source reduction”) we mean limiting or stopping pollutants before they go into the environment.

Why Should I Be Interested In Preventing Pollution?

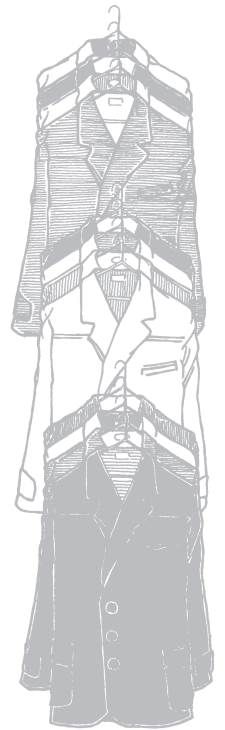
By preventing pollution at its source, you can substantially lower your costs for materials and pollution controls and reduce your liability exposure. At the same time you will reduce risks to your workers' health and safety.

Pollution prevention practices should also help you lower your overall administrative costs, because in general, the less pollution you generate the fewer regulations apply to you and the less time you'll spend dealing with the government.

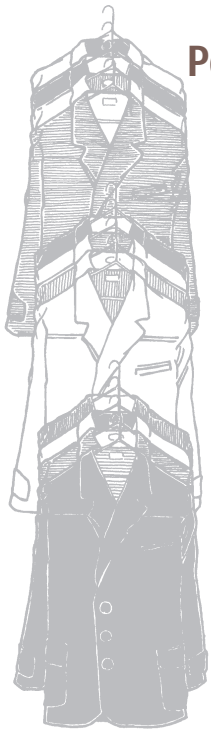
Finally, small businesses should be interested in pollution prevention because the state's **Waste Reduction Policy Act** requires that all SQGs have a source reduction and waste minimization plan in place by January 1, 1997. LQGs are already required to have such plans in place.

Yes! New technologies in the industry have made near total recovery of solvent a reality and the dry cleaning process nearly emission free. Recovered solvent is solvent that does not need to be replaced and that means lower costs. Each dry cleaner should evaluate the costs of solvent replacement versus the installation of state of the art equipment. Dry cleaners large and small have found that new equipment pays for itself in a short time with the money saved by not having to replace solvent.

How Can I Prevent Pollution?



Can Pollution Prevention Save Me Money?



How Do I Develop A Pollution Prevention Plan For My Business?

By asking the question, you have taken the first step toward creating a pollution-prevention awareness in your business. This awareness is key to building a pollution prevention plan. The following pointers may help:

- Identify and evaluate your sources of pollution.
- Look at short-term and long-term options for pollution prevention. The usefulness of any pollution prevention option will depend on its cost, the degree of environmental hazard the pollutant poses, the potential liability the pollutant represents and your ability to finance improvements.
- Calculate your current costs for controlling or managing pollutants from each source and compare them with costs to reduce or prevent pollution from those sources. By linking prevention costs to the source of pollution, rather than treating these costs as overhead, you can pinpoint which prevention measures will make the most economic sense.
- Implement pollution prevention measures that will yield the greatest benefit. Include practices that eliminate the most hazardous pollutants, that reduce the overall amount of pollutants or that reduce or eliminate the pollutants that are the most expensive to manage.
- Develop record keeping and follow-up procedures to track the effectiveness of your plan. Good records of your progress will enable you to share news of your success with the community (your customers) and to recognize employees who have contributed to the prevention effort. Good record keeping will also prepare you to respond to any reporting requirements of state and federal agencies.
- Re-assess your operations periodically to identify new opportunities to prevent materials from becoming pollutants. These may include recycling, substituting raw materials or making process or equipment changes.
- Evaluate the effectiveness of your pollution prevention plan by conducting a periodic review of its results.

As you develop a pollution prevention plan for your business, remember:

- Pollution prevention starts at the top with you, the small business owner or manager. Your example will set the tone for your employees. If you are enthusiastic, they will be too.

- Your employees will probably be your best resources for preventing pollution. Educate your people about your goals and then brainstorm for ideas on how to reduce or eliminate sources of pollution.
This will be a continuous process.

Consider adopting these as part of your regular business practices. They can help reduce operating and waste-disposal costs and reduce your long-term liability.

Good Operating Practices

- Follow a strict maintenance schedule. Maintenance is cheaper than repairs.
- Keep storage areas clean and well organized. It will help you to spot leaks quickly, before they mix with other wastes.
- Clean your lint screens regularly. You'll save on electric bills and repair costs.

Inventory Control

- Buy only what you need. Surplus solvents and spotting compounds lead to high waste-disposal costs.
- Organize your shelves so that old materials are used first. Unused materials become waste that can cost you money.

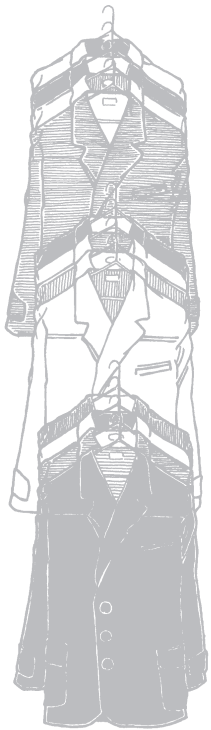
Spill and Leak Prevention

These procedures are required by EPA for perc users but they are good business practices for everyone. They'll make machines last longer, have fewer problems, and cost less to operate in the long run.

- Check hoses, couplings, pumps, valves and gaskets frequently in order to detect leaks. Make repairs promptly.
- Take special care when handling your cleaning materials to prevent spills. You'll avoid costly clean up.
- Know how much solvent your machine normally uses. If solvent use suddenly increases, find out why. Not knowing the answer may be costly (machine repairs, hazardous waste clean up).
- Keep all containers covered to prevent evaporation and spillage.
- Provide secondary containment in areas where solvents are stored. Small leaks will not become more costly spills.

What Are Some Suggested Pollution Prevention Practices?





Raw Material Management

- Look for damaged containers and leaks when materials are delivered. You don't want to pay for someone else's carelessness.

Process Modifications

- Size garment loads correctly. Your machine will operate at top efficiency with the correct size load. Too large a load reduces the effectiveness of solvent recovery equipment; too small a load is inefficient.
- Use pumps and hoses when dispensing new materials and funnels when transferring wastes to storage containers. Use of these tools will reduce the possibility of spills.
- Consider installing additional carbon adsorption or refrigeration units to recover valuable solvent.
- Extract solvent from filters as thoroughly as possible. Gravity drainage and "cooking" are common techniques that can save you money.
- Replace disposable items with reusable ones. For example, environmentally conscious customers can buy reusable nylon bags to hold and transport their dirty clothes. After being cleaned, the clothes are hung on hangers and covered with the nylon bag (cleaned for free) rather than plastic.

Recycling

- Buy materials from vendors that recycle or reuse containers.
- Keep each waste in a separate container for recycling.
- Do not allow nonhazardous waste to become contaminated with hazardous waste. If it does, the nonhazardous waste must be disposed of as hazardous waste, which is very costly.
- Use on-site recovery techniques like closed loop evaporation and distillation units to make solvents reusable.
- If the solvents cannot be made reusable, try to find a way to recycle them. Or, purchase solvents from a company that will pick up and recycle the spent solvent.
- Use water from the separator or condensing unit as spotting solution.
- Encourage customers to bring back hangers that they don't need.
- Do not staple receipts to plastic bags. It makes them harder to recycle. Instead, attach the receipt to the hanger.

POLLUTION PREVENTION SUMMARY GUIDE FOR DRY CLEANING

Dry Cleaning Processes	Emissions & Wastes	Pollution Prevention Solutions	Notes
Dry-to-Dry Perchloroethylene (Perc)	Emissions: hazardous air pollutants (HAPs) Wastes: rags, carbon beds, liquid solvent, distillation residues, carbon & paper filters.**	Monitor equipment efficiency on a regular basis to detect leaks*	"Equipment efficiency" means pounds of clothes cleaned per gallon of solvent.*
Transfer Perchloroethylene (Perc)	Emissions: hazardous air pollutants (HAPs) Wastes: liquid solvent, distillation residues, carbon & paper filters.**	Size garment loads correctly. Overloading reduces the effectiveness of solvent recovery equipment.	Under loading makes less efficient use of solvent. Keep all containers covered.
Dry-to-Dry & Transfer Perchloroethylene (Perc) Compliance for Pollution Prevention	Emissions: hazardous air pollutants (HAPs) Wastes: rags, liquid solvent, distillation residues, carbon & paper filters.**	Inspect equipment regularly. Repair leaks promptly, within required time limit. Install repair parts within 5 working days. Keep a log of leak inspections.*	Practice good house-keeping. Operate and maintain equipment to manufacturers' specifications. Keep a log of Perc purchased. Keep manuals on site.*
Dry-to-Dry Petroleum Solvents (Stoddard, quick-dry, or low-odor)	Emissions: volatile organic compounds (VOCs) Wastes: rags, solvents, distillation residues, carbon & paper filter cartridges, trash, lint, dust, unused chemicals.**	Check hoses, couplings, pumps, valves and gaskets frequently to detect leaks. Make repairs promptly.	Keep all containers covered to prevent evaporation and spillage.
Transfer Petroleum Solvents (Stoddard, quick-dry, or low-odor)	Emissions: volatile organic compounds (VOCs) Wastes: solvents, distillation residues, carbon & paper filter cartridges, trash, lint, dust, unused chemicals.**	Use spigots and pumps when dispensing new materials and funnels when transferring wastes to storage containers.	If the solvent cannot be made reusable, try to recycle it. Purchase solvents from a company that will pick up and recycle. Keep containers covered.
Equipment Cleaning	Emissions: volatile organic compounds (VOCs) Wastes: rags, spent solvent, empty solvent containers, spent filter cartridges, cooked powder residue, still residues.**	Use on-site recovery techniques to make solvents reusable. Distillation is a commonly used method of on-site recovery. Drain solvent thoroughly from filters.**	Keep storage and work areas clean, well organized, and keep containers labeled.

*Required by EPA

**Gravity drainage and "cooking" are commonly used techniques to extract solvents from filters.



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